

California's Flood Future

Recommendations for
Managing the State's Flood Risk

Presentation to
CWP Public Advisory Committee
December 13, 2012

Report Purpose

- Promote understanding of flood problems statewide
- Make recommendations for managing flood risk
- Guide decisions about:
 - Policies
 - Financial investments



California's Flood Future Report

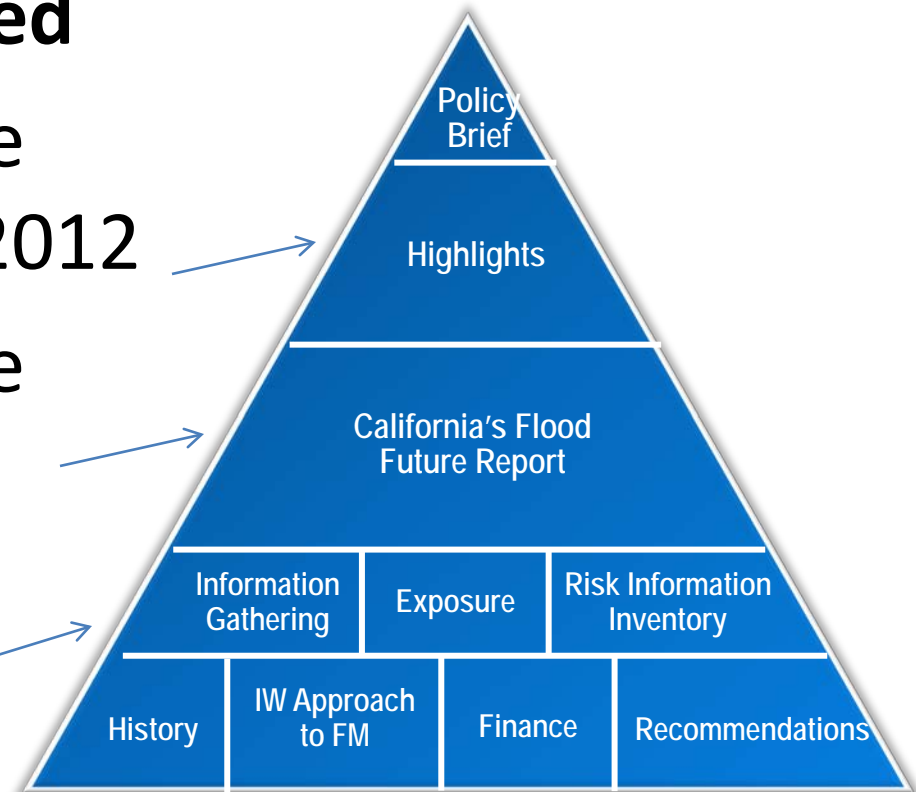
- Understanding the Situation
- The Problem
- The Solution
- Seven Recommendations
- Path Forward



California's Flood Future Schedule

Draft Documents Released

- California's Flood Future Highlights: December 2012
- California's Flood Future Report: March 2013
- Technical Memoranda: January 2013



Understanding the Situation

California is at risk for catastrophic flooding

- 1 in 5 Californians are exposed to flooding
- More than \$580 B in assets are exposed to flooding
- Major flooding in all counties
- Flood insurance policyholders have tripled since 1982



The impacts of a major flood would be devastating to California and to the nation

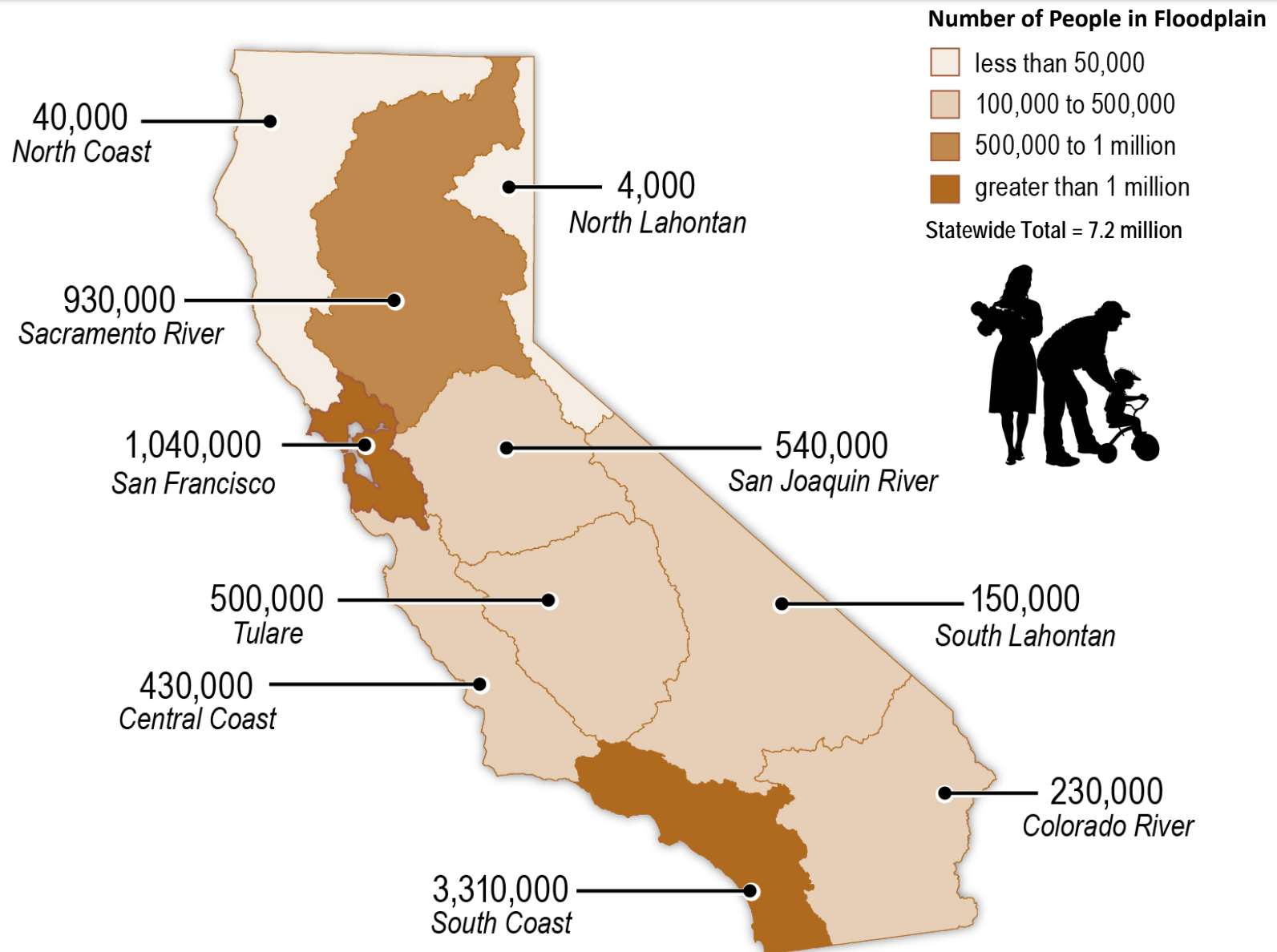
- Millions of citizens, homes, businesses can be flooded
- Critical infrastructure could be out of service for long periods of time
- Vital services could become isolated or closed
- Water supplies and water quality can be affected
- Vast areas of agriculture lands can be flooded

The many types of flooding require regional solutions



Problem

7.2 million Californians live in floodplains



7.2 million Californians live in floodplains

Number of People in Floodplain

- less than 50,000
- 100,000 to 500,000
- 500,000 to 1 million
- greater than 1 million

Statewide Total = 7.2 million

Exposed Population (Millions)

1.5

1.0

0.5

0.0

Santa Clara

Orange

Los Angeles



00
n River

150,000
South Lahontan

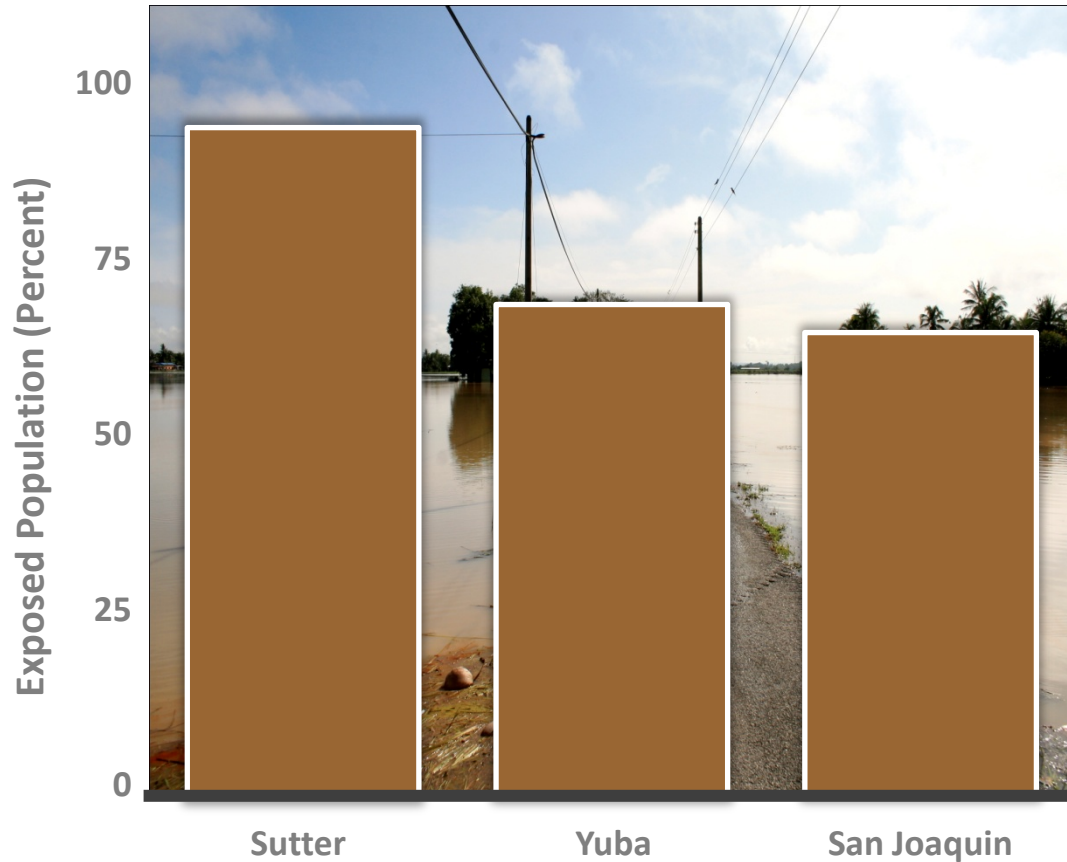
230,000
Colorado River

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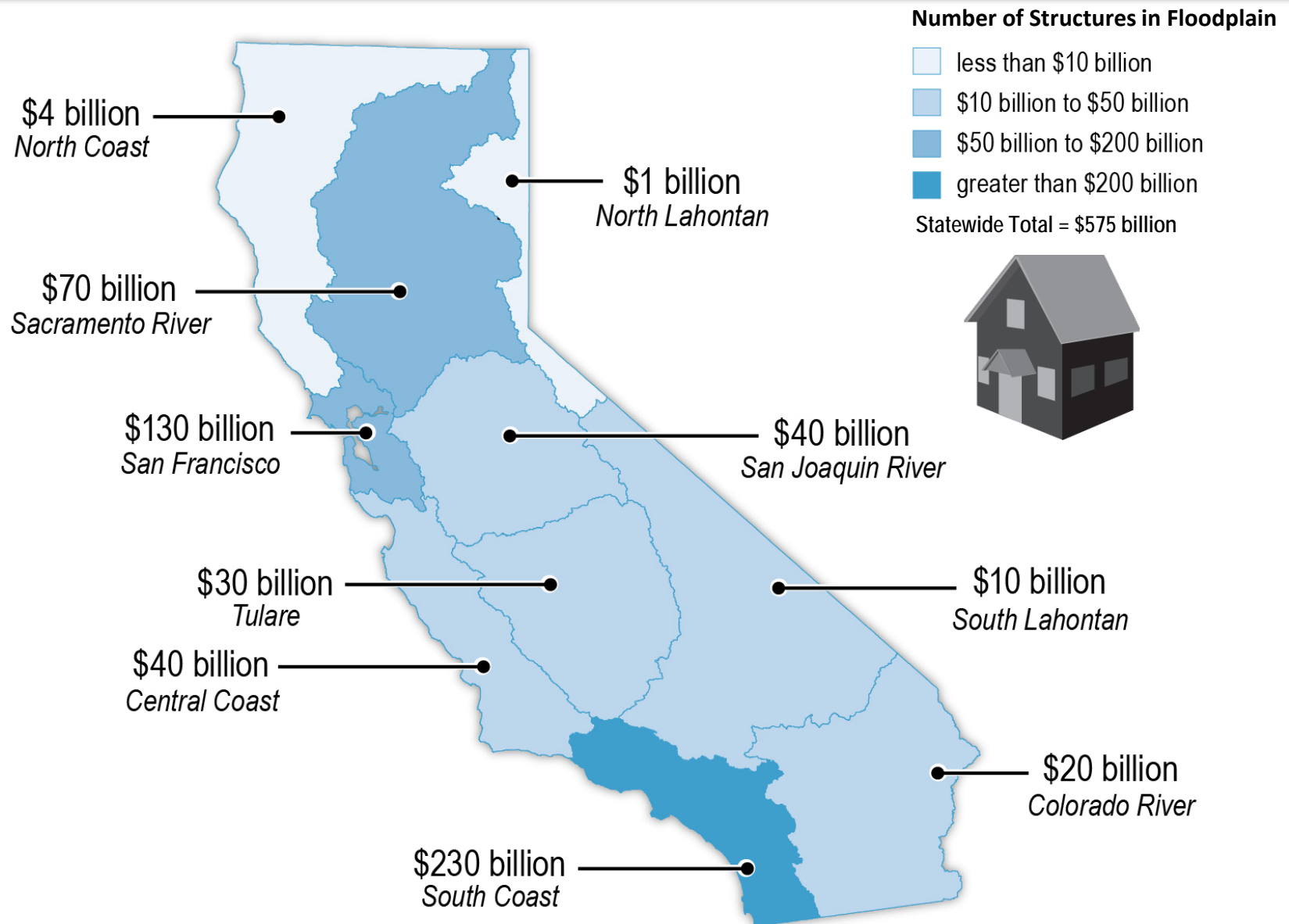


100,000
Colorado River

150,000
South Lahontan

230,000
Colorado River

\$575 billion in structures are at risk



\$575 billion in structures are at risk

Number of Structures in Floodplain

- less than \$10 billion
- \$10 billion to \$50 billion
- \$50 billion to \$200 billion
- greater than \$200 billion

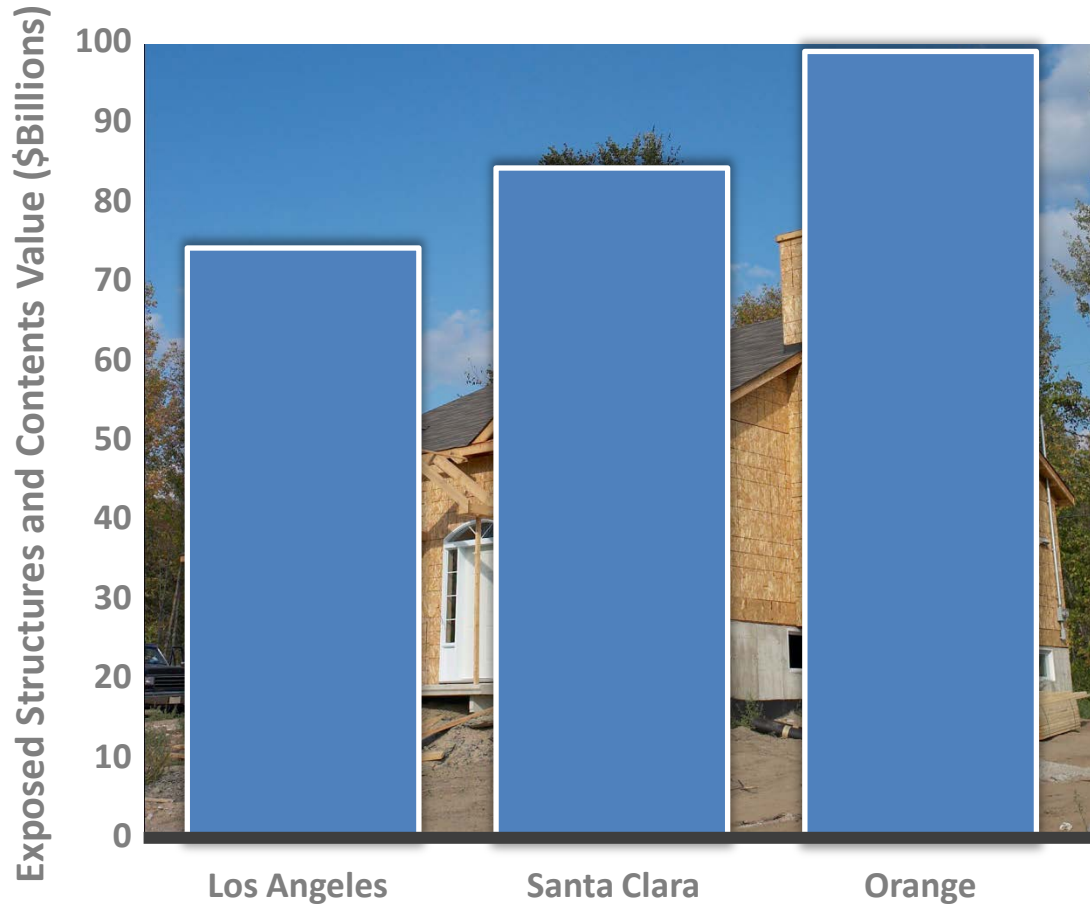
Statewide Total = \$575 billion



llion
in River

\$10 billion
South Lahontan

\$20 billion
Colorado River

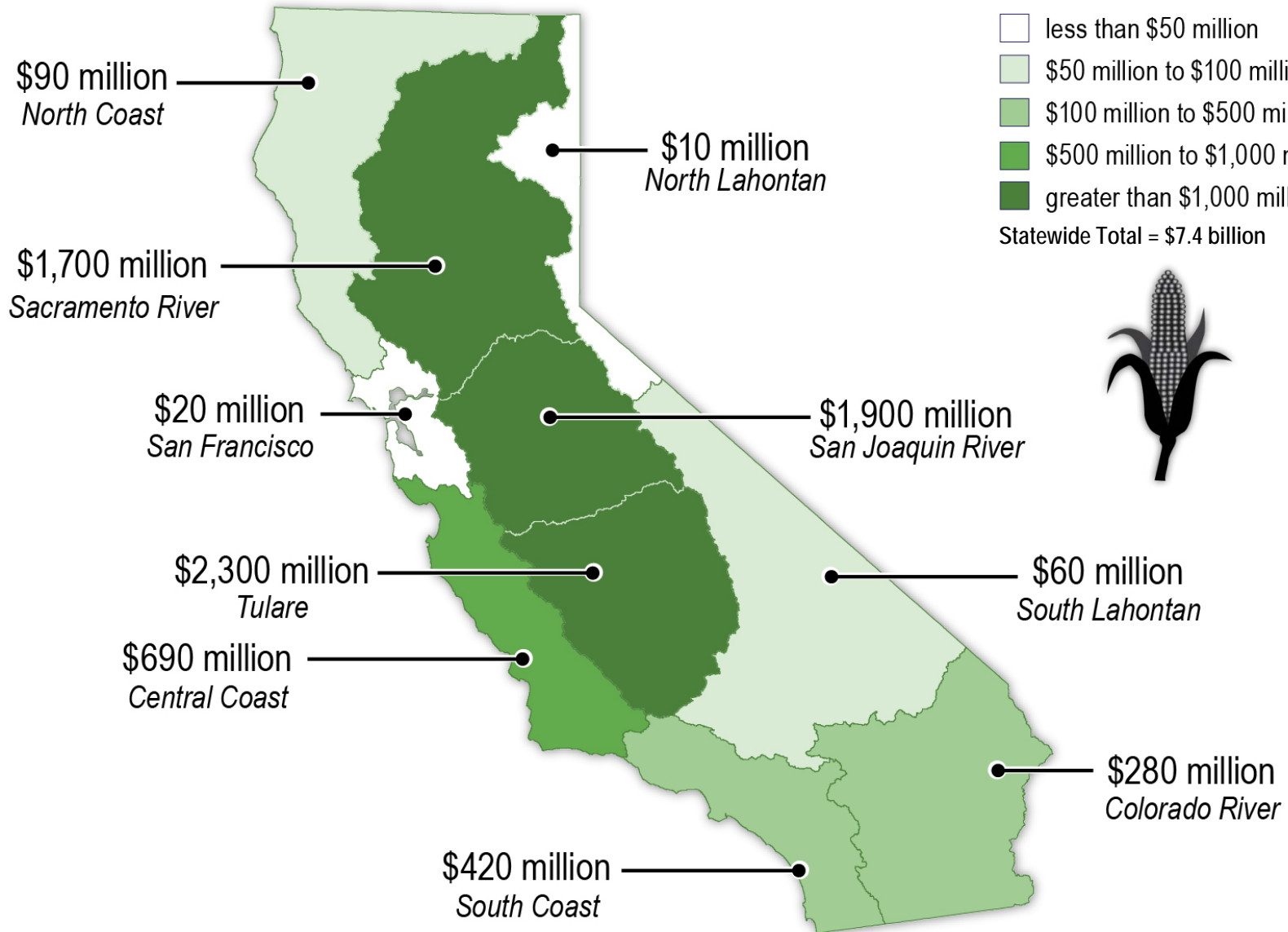


California's agricultural economy is at risk

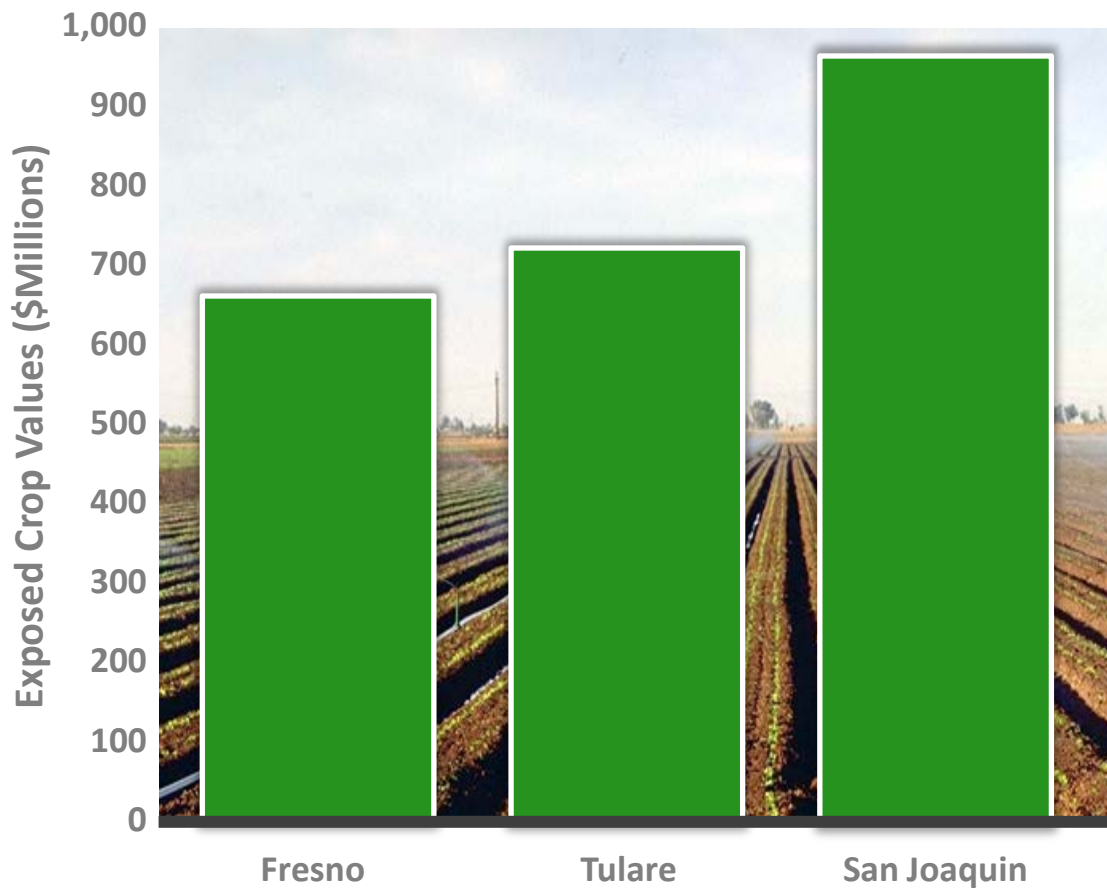
Crop Value in Floodplain

- less than \$50 million
- \$50 million to \$100 million
- \$100 million to \$500 million
- \$500 million to \$1,000 million
- greater than \$1,000 million

Statewide Total = \$7.4 billion



California's agricultural economy is at risk



Crop Value in Floodplain

- less than \$50 million
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Statewide Total = \$7.4 billion

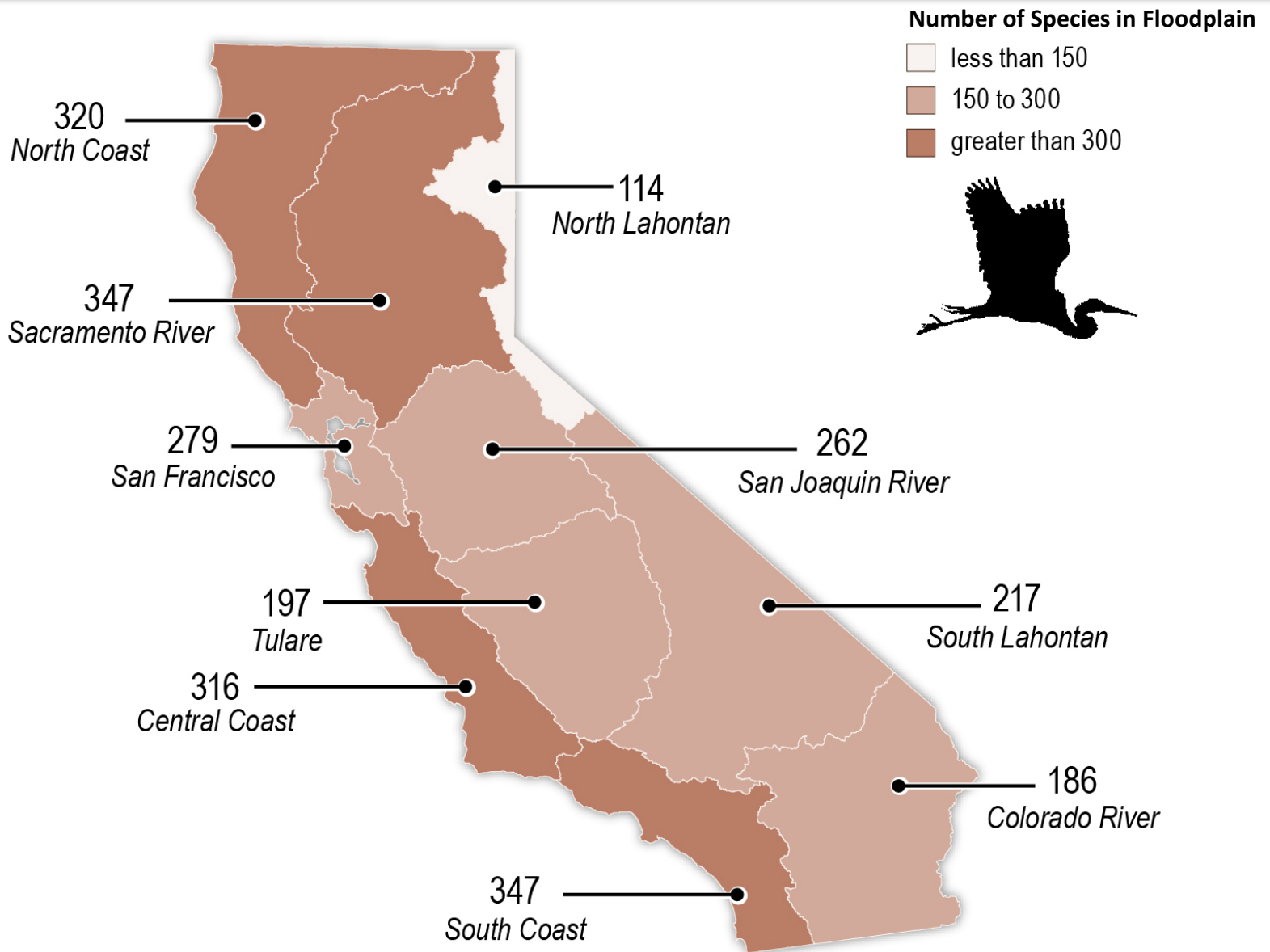


million
uin River

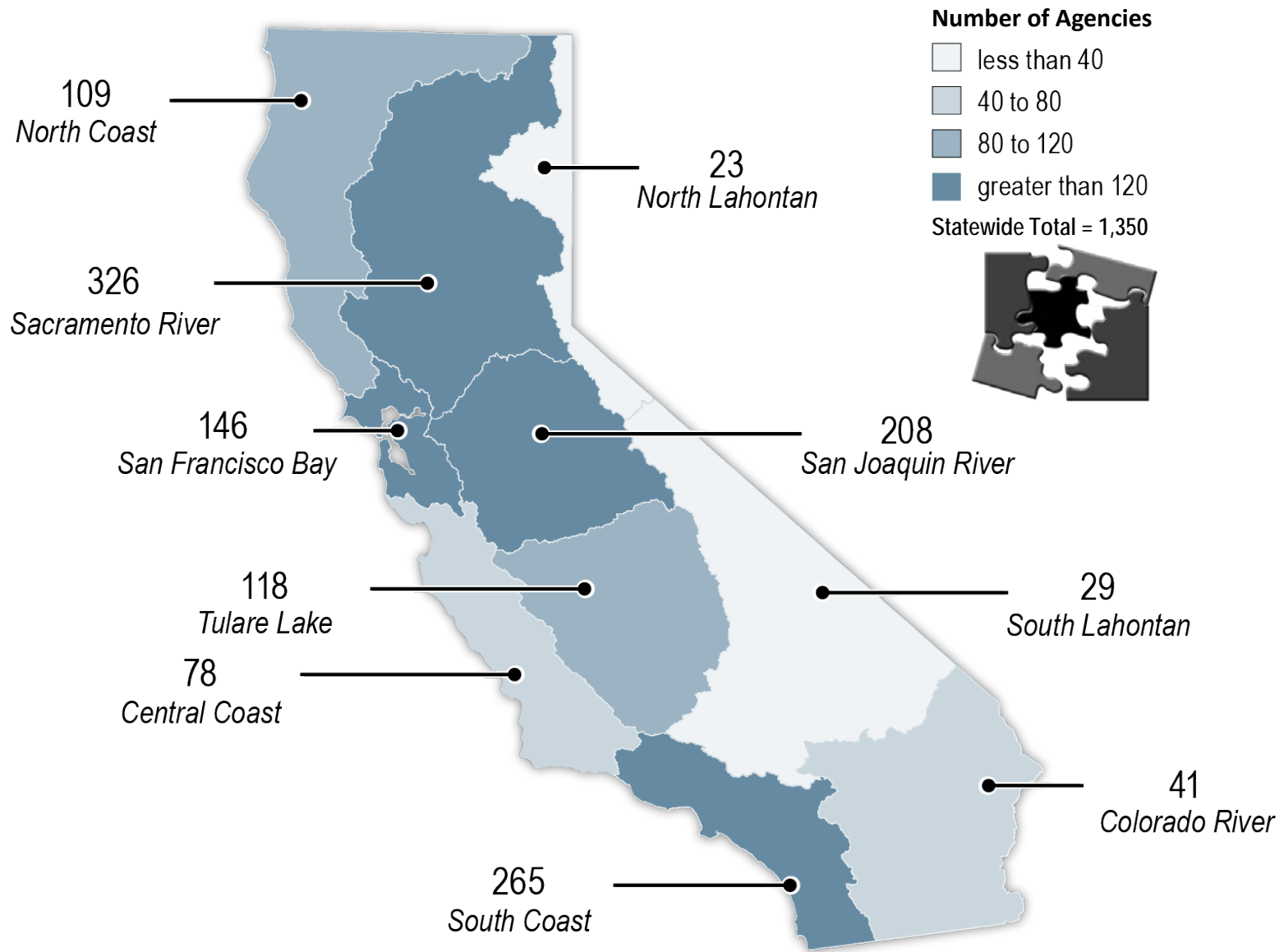
\$60 million
South Lahontan

\$280 million
Colorado River

Sensitive species live in floodplains



Flood management authority is complex and fragmented

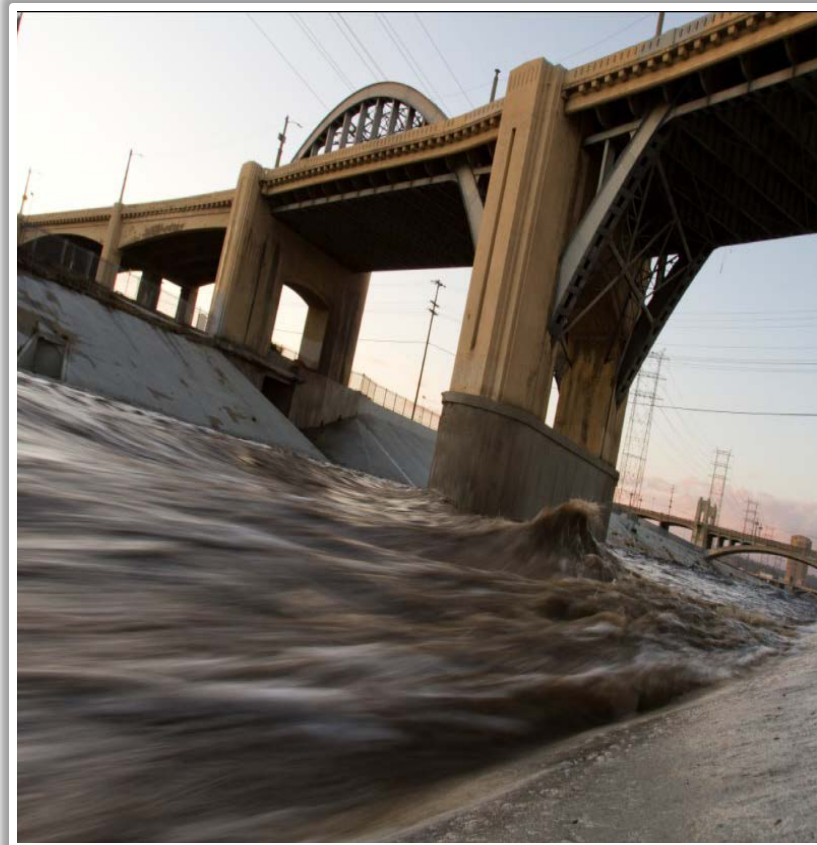


Flood infrastructure does not meet current and future needs

-Complex array of existing infrastructure

-900 plus projects identified

- 20% do not have cost estimates
- \$30 to \$50 billion improvements and projects
- Will not provide a 100-year level of protection statewide



Flood funding is limited and unreliable

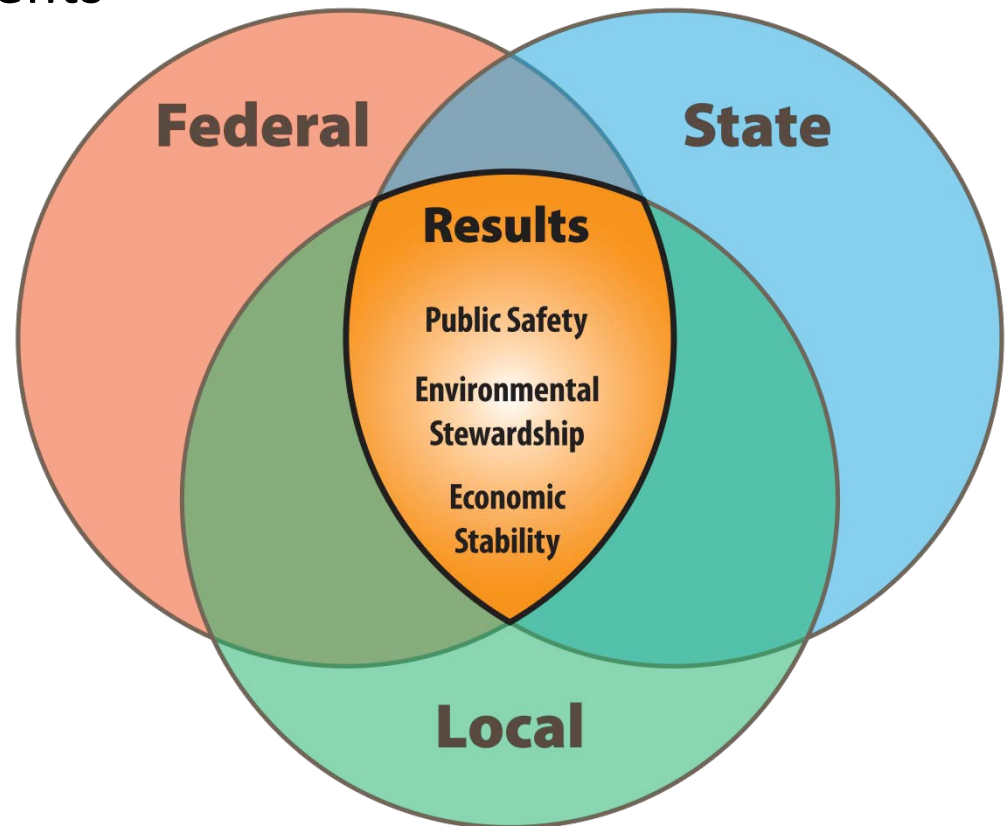
- Inconsistent and insufficient funding
- Declining local resources
- Reduced Federal cost shares
- Challenging revenue structure
- Cost of flood management misunderstood by public and policy makers



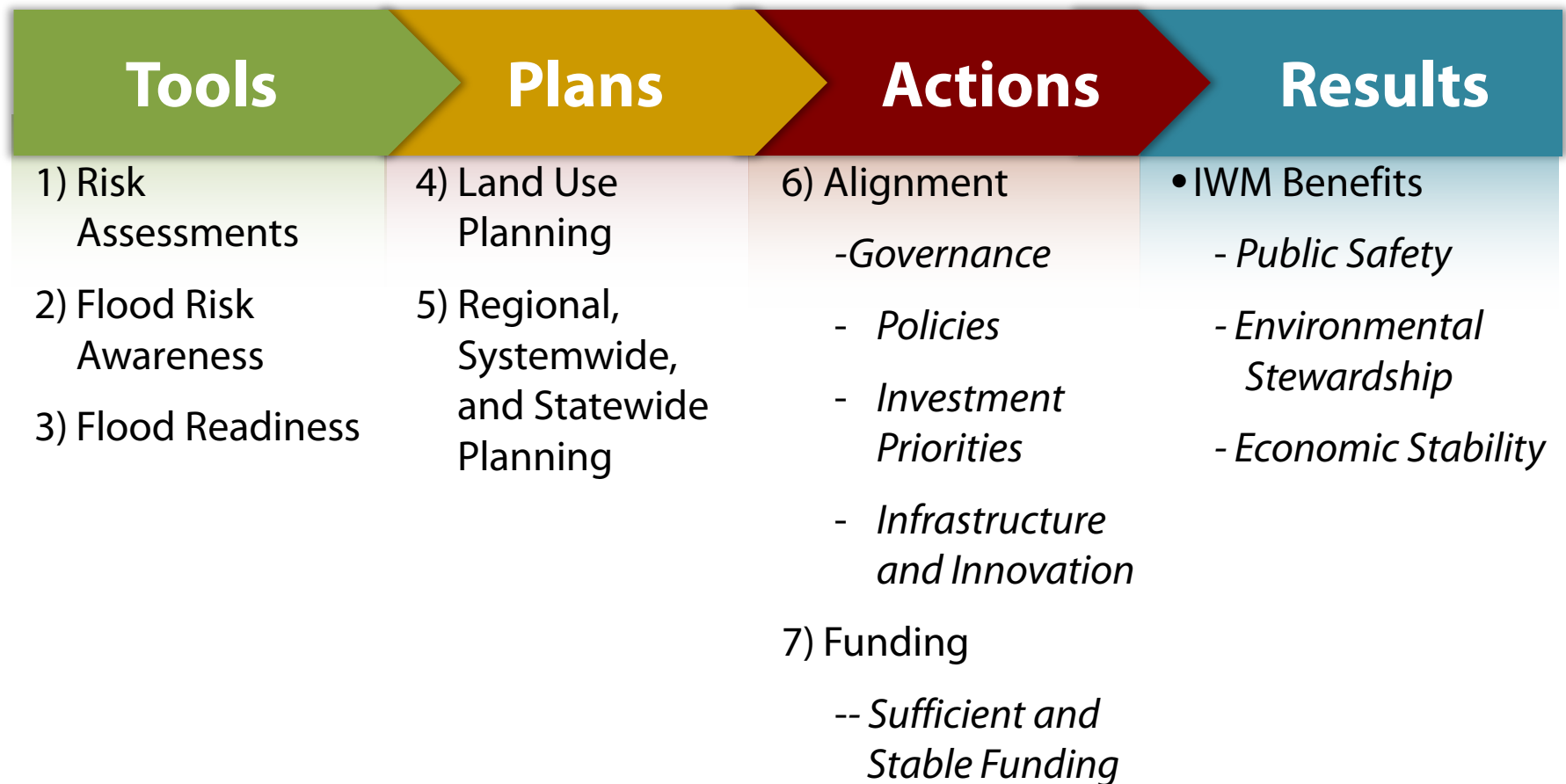
Solution

Flood Management using an Integrated Water Management approach

- High value, multiple benefits
- Large range of solutions
- Collaboration and cooperation
- Regional and systemwide approach
- Broader array of funding sources

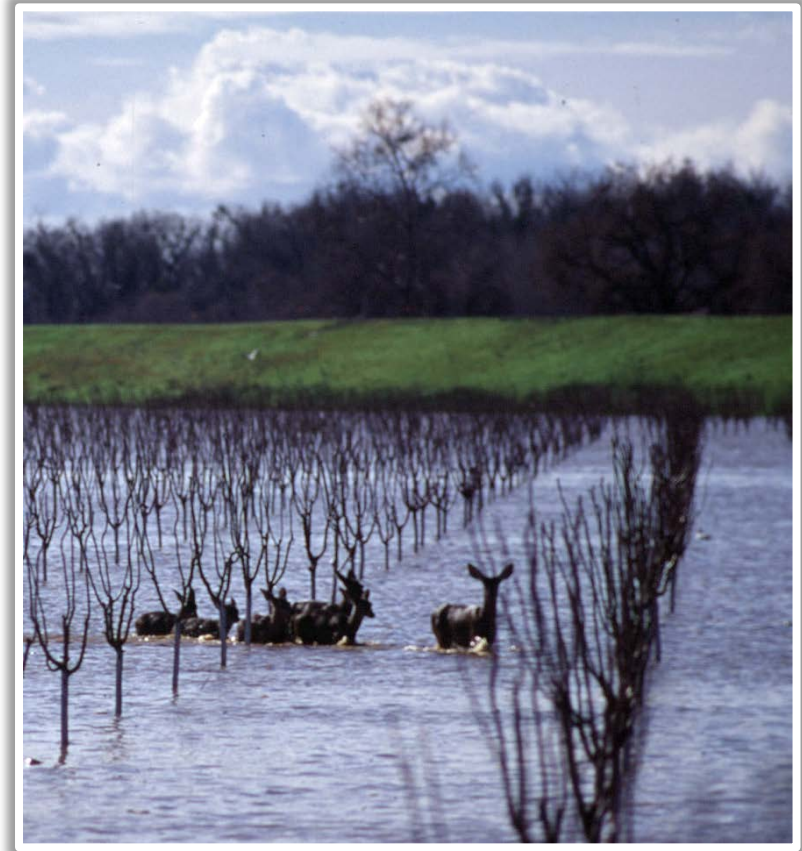


Recommendations for managing California's flood risk



Recommendation 1

1. Conduct regional flood risk assessments to understand statewide flood risk



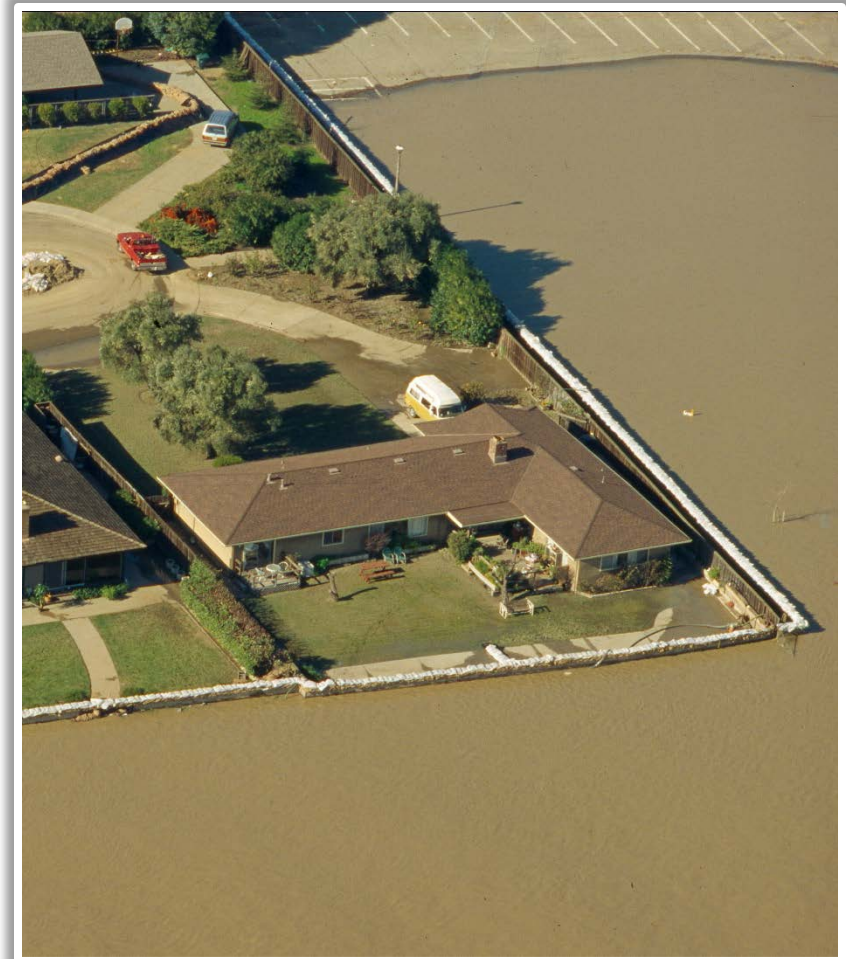
Recommendations 2 and 3

2. Increase public and policy maker awareness about flood risks to facilitate informed decisions
3. Increase support for flood emergency preparedness, response, and recovery programs to reduce flood impacts



Recommendations 4 and 5

- PLANS
3. Encourage land-use planning practices that reduce the consequences of flooding
 4. Conduct flood management from regional, systemwide, and statewide perspectives to provide multiple benefits



Recommendations 6 and 7

- ACTIONS
6. Increase collaboration among public agencies to improve flood management planning, policies, and investments
 7. Establish sufficient and stable funding mechanisms to reduce flood risk



We Must Take Action Now

California's future depends on:

- Agencies at all levels working together
- Implementing policies and projects using an IWM approach
- Stakeholder and policymaker awareness of the cost and consequences of flooding
- Establishing investment priorities and sufficient and stable funding

Short-term and long-term solutions are necessary

Flood Management in the California Water Plan 2013

Flood Management in CWP 2013

Highlights

Volume 1: Strategic Vision--Eight Chapters

- | | |
|---------------------------|---------------------------------|
| 1. Overview | 5. Managing an Uncertain Future |
| 2. California Water Today | 6. Integrated Data and Analysis |
| 3. Imperative to Invest | 7. Finance Planning Framework |
| 4. Companion Plans | 8. Implementation Plan |

Volume 2: Flood Content in each Regional Report

Volume 3: Flood Management Resource Management Strategy

Flood Future Highlights in CWP

Understanding the Situation

- Joint Letter
- California is at risk
- Impacts would be devastating
- We must take action now
- Short-Term and long-term solutions are necessary
- Flood Mgmt using an IWM approach

CWP Volume One

- Chap 3,5, and 7
- Chap 2 and 3
- Chap 2 and 3
- Chap 1,3 and 7
- Chap 8
- Chap 1 and 2

Flood Future Highlights in CWP

Understanding the situation

- 142 Local Agencies speak Out
- Flooding in California
- Flood Basics
- Variable Flood conditions require regional approaches

CWP Volume One

- Chap 2 and 3
- Chap 2,3, and 7
- Chap 5
- Chap 2 and 3

Flood Future Highlights in CWP

The Problem

- Flood Exposure Maps
 - People, Structures, Agriculture, and Environment
- Responsibilities are complex
- Infrastructure does not meet needs
- Funding

CWP Volume One

- Chap 2
- Chap 3
- Chap 3
- Chap 3 and 7

Flood Future Highlights in CWP

The Solution

- Solutions must use an IWM Approach
- Recommendations: Tools, Plans, Actions, Results
- Seven Recommendations
- Path Forward

CWP Volume One

- Chap 1 and 3
- Chap 8
- Chap 8
- Chap 8

California's future depends on elected officials, stakeholders, and agencies at every level of government working together to improve public safety, environmental stewardship, and economic stability.

Tools

Plans

Actions

Results

- ✓ Public Safety
- ✓ Environmental Stewardship
- ✓ Economic Stability

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<http://www.water.ca.gov/SFMP>



Questions?